Appl. No. 09/945,049

Amdt. Dated May 6, 2004

Reply to Office Action of Feb. 10, 2004

Amendments to the Specification:

Please replace the paragraph [0065] with the following.

[0065] Figure [[4]] 5 shows how the ratio of the mass of the gas per mass of steel (defined as the

efficiency) varies with the ratio of the diameter to thickness of the pipe. This type of curve is

used when choosing the optimum D/t or maximum efficiency  $\psi$  as discussed above. As can be

seen in Figure 4, the maximum of  $\psi$  occurs at different D/t for different yield stress values; these

maxima are tabulated below for materials of different yield stress.

Please replace the paragraph [0085] with the following.

[0085] Figure [[5]] 6 shows that the pipe bundle 14 extends nearly the full length of the train car

10. It should be appreciated that there will be space adjacent the ends 34 and 36 of the pipes 12

for manifolds 86, 88 and related valving, hereinafter described, as well as room to manipulate the

valving and manifolding.

Please replace the paragraph [0105] with the following.

[0105] Referring now to Figures 13 and 14, another embodiment of the present invention

includes a gas storage system constructed as a self-contained modular unit 230 rather than as a

part of a vehicle. The preferred modular unit 230 includes a plurality of pipes 232, forming a

pipe bundle 231, with pipes 232 being substantially parallel to each other and stacked in tiers.

The pipes 232 are held in place by a pipe support system, such as straps 210 having ends

connected to a frame 238 forming a box-like enclosure around pipe bundle 231, and having a

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manifold 233, similar to the manifold system shown in Figure 12, connected to each end of pipes

232. It should be appreciated that the cross beams 18 of Figures 7 and 8 may also be used as the

pipe support system. The enclosure 238 isolates the pipe bundle 231 from the environment and

provides structural support for the piping and pipe support system. The enclosure 238 is lined

with insulation [[234]] 242 thereby completely surrounding pipe bundle 231 and is filled with a

nitrogen atmosphere 236. The nitrogen may be circulated and cooled for maintaining the proper

temperature of the pipes 232 and stored gas. The enclosure may be encapsulated by a flexible,

insulating skin of panels or semi-rigid, multi-layered membrane that can be inflated by nitrogen

and serve as insulation and protection from the elements.

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